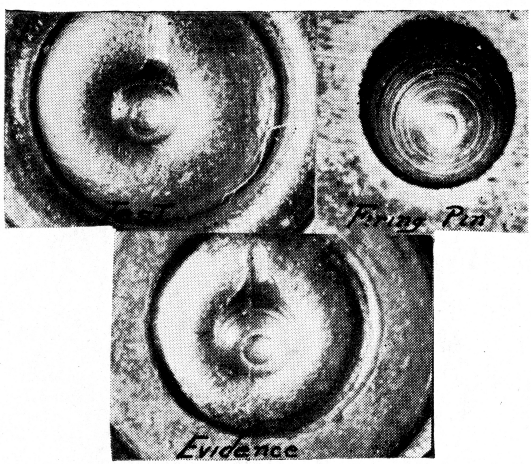
THE TECHNICIAN IN THE POLICE LABORATORY



VOL. 1—NO. 4

AUGUST, 1943

A scientific publication, issued monthly by the Laboratory of the Missouri State Highway Patrol, through the interest and cooperation of police laboratory technicians throughout the country. "THE TECHNICIAN" is a non-profit, and non-copyrighted bulletin, edited by the personnel of the M.S.H.P. Laboratory.

- # -

This month's cover photograph is one accompanying the article on the identification of a firing pin mark, by Ray B. Jenkins, Firearms Examiner with the M.S.H.P. Laboratory. The original photographs were taken with Leitz "Panphot", on Panatomic-x cut-film. A 10 cm "Milar" lens was used at F-16.

- # -

Responsibility for all statements made in material published in this bulletin rests with the author of the particular contribution; neither that material nor the editorial comments appearing herein are to be considered as necessarily reflecting the views or opinions of the Missouri State Highway Patrol, nor the Laboratory of that Department.

- # -

"THE TECHNICIAN" will be sent free of charge to individuals or departments upon request. Address all correspondence to "THE TECHNICIAN", Missouri State Highway Patrol, Jefferson City, Missouri.

THE IDENTIFICATION OF A FIRING PIN MARK

By Ray B. Jenkins

Firearms Examiner with the Laboratory of the
Missouri State Highway Patrol

This particular case is not written up due to any outstanding criminal action involved, nor to any spectacular aspects from the laboratory standpoint. It is of interest solely because of the length of time which elapsed between the commission of the crime and the date upon which the firearms evidence involved was submitted to the laboratory for examination -- a period of nearly eleven years.

In 1932 the Federal Government was preparing evidence in a case involving an Italian narcotic peddler. On June 22, 1932, this man, in an effort to hamper the prosecution of the case against himself, attempted to murder an important witness in the trial. The witness was only wounded. However, the peddler had stepped to the side of the automobile and killed a woman occupant with a blast from a shotgun. He then immediately fled.

After considerable investigation, the subject was located in an eastern state where he was serving a sentence in the penitentiary on a narcotics violation, and a charge of carrying concealed weapons. Upon release from that institution he was met at the prison gates, and returned to be tried on the murder charge.

At the time of the shooting, in 1932, an "N. R. Davis" twelve gauge double-barrel shotgun was found at the scene, as were some fired and unfired shotgun shells. This evidence was kept in custody of the county authorities until the subject was returned for trial.

On April 7, 1943, the shotgun, with the shells found

at the crime scene, and also accompanied by two test shells fired almost eleven years before, were submitted to the laboratory of the Missouri State Highway Patrol for examination.

An examination of the shotgun did not disclose any apparent rust or markings which could be attributed to the long period of time that it was held by the authorities prior to the defendants being brought to trial.

The same type and age shotgun shells were not available for firing as test shots for the examination, so it was necessary to use shells of a later manufacture. Test shots were fired and a comparison made with the evidence shells and also with those test shells which had been fired shortly after the crime was committed. The examination indicated that all the shells were fired from the same gun; however, the markings were so indistinct on the latest fired test shots that it was not believed they were conclusive enough to be introduced as evidence. Following this examination, another series of test shots were fired, in which the shot and powder were first removed from the shell. An examination of these test shots and a comparison with both the evidence shells and the old test shells gave perfect, conclusive proof that the shells found at the crime scene, the test shells fired in 1932, and certain of the test shells fired in 1943 were fired from the left barrel of the shotgun. The evidence proved conclusively that the shotgun in question was the one which had been used in firing the fatal shot eleven years before.

The defendant was found guilty of murder in the second degree, and sentenced to serve a term of ten years in the state penitentiary.

Photographs of one of the evidence shells, the firing pin, and of a recently-fired test shell appear on the front cover of this issue. (It is of interest to note that only this one of the two firing pins was marked with

the concentric rings.)

- # -

TECHNICAL NOTE

A number of the difficulties encountered by the expert witness as regards his being "qualified" by the court may be overcome by his having prepared in advance a set of questions which may be asked him by the Prosecuting Attorney.

Not infrequently the amount of time available, before trial, for a discussion of the witness' qualifications with the attorney is too short to permit adequate preparation on this point. Further, many attorneys seem themselves to be totally unprepared for the presentation of expert testimony, and may fail completely to prepare for the satisfactory offering of his conclusions.

A single set of written questions may be made out by the witness on each of the various types of evidential material upon which he is likely to have to present testimony.

These may be made flexible enough to serve in practically all cases. Handed to the prosecutor before the trial, they may provide a basis for his preliminary questioning of his witness, and one which will give the witness a greater feeling of self confidence than may be had if his qualifications have been poorly and inadequately presented.

SOME FURTHER DISCUSSION ON THE IDENTIFICATION OF SEMINAL STAINS

By David Q. Burd*

In the first issue of "THE TECHNICIAN" Mr. Davis** opened a discussion on tests for seminal stains and the conclusions which might be drawn from them. We do not wish to criticize any of those statements, but since he has invited an open discussion, we will present our views on the subject which in certain aspects do not agree with the expressions presented by him.

Some type of preliminary test for semen is in many cases essential and is always of great help in the examination of clothing or other objects since it greatly shortens the time which would otherwise be required for the laboratory examination. Since semen does fluoresce under ultra-violet light, fluorescence serves as an excellent method for locating stains which may then be subjected to further tests. Another method of locating stained areas is by the sense of touch. Seminal stains on cloth frequently have a fairly characteristic "feel" when the cloth is gently touched with the fingers. This method can be used if no ultra-violet light is available although it is usually less satisfactory and may not be apparent at all if the amount of semen is quite small or on certain types of cloth. Any such handling of the cloth naturally must be done with great care since otherwise many spermatozoa, if present, will be broken or destroyed.

Following the location of suspected stains more specific tests must be applied. In the majority of cases in this laboratory we do not carry out any of the standard chemical tests. The reason for this is that we do not feel that any of the commonly accepted preliminary tests are specific enough to warrant definite conclusions.

The preliminary chemical tests can be used to locate stains but examination under ultra-violet light is so much more rapid that it is more satisfactory for this purpose. On the other hand, the isolation of spermatozoa is definite and conclusive and should be depended upon to prove the presence of semen. If this is done what purpose do the chemical tests serve? We certainly do not mean to imply that research on chemical tests should be discontinued, since if a good specific test can be developed it will be of great aid in many cases, especially when the spermatozoa have been broken or partially destroyed. But the chemical tests now used are not only non-specific but they are also fallible, being negative at times even when spermatozoa can be isolated. Since we find this to be true we do not use them on our routine case work. If it happens that no complete spermatozoa can be isolated from a suspected stain the expert should not express any opinion as to whether or not semen is present even if the various chemical tests have reacted positively. Other evidence or statements in the case should have absolutely no affect on this.

The isolation of spermatozoa is the most time-consuming test which is applied to suspected stains but at the present time it is the only conclusive test. Various stains are used on these cells, the most common being haematoxylin or methylene blue and counterstaining with eosin. We have found that just as satisfactory results can be obtained with the use of Wright's stain alone. Wright's stain is not only a selective stain, but its use saves time.

While most authorities agree that complete cells should be found before a definite conclusion is reached, they usually fail to state how many cells should be found. In our opinion, a minimum of two complete spermatozoa should be found. Broken cells or heads and tails alone should not be depended upon for proving the presence of semen since it is easy to confuse these with other cells or matter which are not present in semen.

Some authorities*** state that if only disconnected heads and tails are found a definite opinion can be given only by an expert. This may be true, but we believe that regardless of this statement the expert in the police laboratory should not attempt to depend on portions of cells alone. If two or more complete spermatozoa are found portions of other cells may help corroborate these since they can be carefully compared on the same microscope slides with the whole cells. One of the reasons for desiring two or more complete cells is that in a minute drop of semen there are thousands of spermatozoa. While many of these, if not most, will be destroyed before the cells can be isolated and identified under the microscope, the finding of one cell out of many thousands is not very strong evidence. It is possible for one cell (or even more) to have been on the clothing before the crime under investigation took place.

This brings up an entirely different subject; that of the age of seminal stains and the length of time it takes for the spermatozoa in semen stains on clothing to be destroyed by wear and exposure of the garment. This will not be discussed in this article but it is a question which is usually raised by the defense attorney and therefore must be considered by the expert. The more complete cells that can be found the more likely is the seminal stain to be of recent origin.

The writer realizes that this does not settle the question of how many complete cells should be found. It must be admitted that there is no accepted standard. We feel that by requiring at least two complete cells, we have a satisfactory basis for an opinion which gives the defendant the benefit of the doubt to which he is entitled.

- # -

* David Q. Burd, Chemist and Ballistic Expert for the California State Division of Criminal Identification

and Investigation. A.B. degree in Technical Criminology at the University of California, received in May 1941. Employed in present capacity since March 1942.

** John E. Davis: "The Identification of Seminal Stains" - The Technician Vol. 1, No. 1, Page 19.

*** Sidney Smith : "Forensic Medicine", Page 319.

* *

FOR TRADE:

One Bausch & Lomb Ortho-Stereo Camera, complete with six lens adapters, but without lenses.
Condition: Perfect (new)
Exchange value: $250.00
Will exchange for: Refractometer (Abbe Type)
Microtome (sliding type preferred)
Microscope (particularly Spencer Stereoscopic No. 23)
Colorimeters, cameras, microscopes, lamps, or what have you?

- # -

One Zeiss Microscope Filament Lamp 1, No. 13 93 21.
Condition: Perfect
Exchange value: $12.00

- # -

Contact the Editor of THE TECHNICIAN.

A SPOT TEST FOR NITRITES

Note on the Experimental Data Presented Herewith:

The nitrite test described in the accompanying material was discovered quite by accident by us in the course of routine experimental work. We had not previously noted in the literature any mention of this test. As far as we were concerned, it was original with us. However, a more careful examination of Feigl's "Spot Tests" shows that the test has been reported before (page 216 this reference), and is not a new test.

Because of the fact that all of the work had been performed without knowledge that such a test had already been developed, and because the report had been written up from that standpoint, we feel that it may be of interest for two primary reasons. First it serves as an illustration of just how a "new" test is worked up---the processes which a technician may go through in developing something which attracts his attention. Secondly it will be of interest as a corroboration of the work of those technicians who did actually make the original discovery of the test, and may possibly add something more to the information already published on it. Inasmuch as so relatively little comment appears to have been made on the test in the literature, possibly this discussion will bring it to the attention of others for the first time also. Considering the sensitivity of the reaction, and the simplicity of it, the analyst may find it a convenient test to apply, and one worthy of his attention.

Accordingly we submit the material for the value that it may have.

SOME OBSERVATIONS ON A SPOT TEST FOR THE DIFFERENTIATION OF NITRATE AND NITRITE IONS

By John E. Davis*

Technician with the Laboratory of the
Missouri State Highway Patrol

During the course of a series of benzidine tests on some contaminated specimens of blood (prepared specifically for testing purposes), a reddish orange color was obtained on a specimen contaminated with sodium nitrite, instead of the characteristics blue of the blood test. The color appeared before addition of peroxide, and peroxide did not change the color to blue. Accordingly a test was run on the pure salt sodium nitrite in order to determine if it alone would give the orange color. It did. This naturally suggested the possibility that this reagent would serve as a convenient spot test for nitrites. Considering the fact that nitrates often react positively to nitrite tests, a solution of sodium nitrate was tested with the reagent, with negative results. The reaction was of interest, and considering the apparent sensitivity of it, and the difficulty often encountered in distinguishing nitrite and nitrate ions, further work on the test was thought advisable.

The reagent which had been used was a nearly saturated solution of benzidine in alcoholic acetic acid. In order to determine which of the components were essential to the reaction, a nitrite solution was tested with each of the following reagents:

(1) Benzidine in Ethyl Alcohol
(2) Benzidine in Glacial Acetic Acid
(3) Benzidine in a mixture of the two
(4) Pure Glacial Acetic Acid
(5) Pure Ethyl Alcohol

A positive reaction was obtained only with mixtures (2) and (3), indicating that both benzidine and acetic acid are essential to the test reaction.

For the further testing procedures, an alcoholic-acetic acid solution of benzidine was used, and a number of tests run on solutions of various substances as presented in the table below, in order to determine whether any of these materials would give a reaction identical to or similar to the nitrite reaction.

Inasmuch as the running of these tests was to so closely parallel blood testing with the benzidine test, observation was also made and recorded of the reaction obtained upon addition of a solution of sodium peroxide to the spot immediately after the application and effect of the benzidine was observed.

The procedure consisted in placing a small crystal or fragment of the test material on a filter paper, adding a drop of water (distilled), to be followed by the benzidine reagent--then the peroxide.

A dash (--) indicates no reaction. All chemicals reagent grade.

SUBSTANCE TESTED	COLOR WITH BENZIDINE REAGENT
Silver Nitrate	Faint blue, formed slowly
Aluminum Sulfate	--
Barium Acetate	--
Barium Chloride	--
Bismuth Sulfate	--
Calcium Acetate	--
Ammonium Nitrate	--
Sodium Fluoride	--
Calcium Chloride	--
Cobalt Chloride	--
Copper Acetate	--
Ferric Chloride	Very faint yellowish

SUBSTANCE TESTED	COLOR WITH BENZIDINE REAGENT
Ferric Sulfate	--
Ferrous Sulfate	--
Mercurous Chloride	--
Mercurous Nitrate	--
K Ferrocyanide	--
K Cyanide	--
K Bromide	--
K Sulfate	--
K Oxalate	--
Mg Chloride	--
K Arsenate	--
KNO_3	--
K Chloride	--
K Permanganate	Changes from purple to dark blue
K Iodate	--
K Iodide	--
K Dichromate	Immediate dark blue color
Ferrous Ammonium SO_4	--
K Ferricyanide	Violet to purplish color
K Persulfate	Deep blue and brown to yellow
K Nitrite	Deep orange color
K Thiocyanate	--
Mg Sulfate	--
Mg Acetate	--
Na Chloride	--
Na Nitrate	--
Na Nitrite	Deep orange color
Na Carbonate	--
Na Sulfate	--
Na H Phosphate	--
Na Acetate	--
Na Silicate	--
K Chlorate	--
K Chromate	Immediate dark blue
Nitric Acid	Pale yellow color, not made orange if KOH be added
Hydrochloric Acid	--

SUBSTANCE TESTED	COLOR WITH BENZIDINE REAGENT
K Hydroxide	--
Na Hydroxide	--
Perchloric Acid	--
Chromic Acid	Immediate blue
Ammonium Chloride	--
Ammonium Carbonate	--
Ammonium Molybdate	--
Ammonium Oxalate	--
Nickel Nitrate	--
Lead Acetate	--
Stannous Chloride	--
Thallium Acetate	Faint blue color
Thallium Nitrate	--
Uranyl Acetate	--
Zinc Chloride	--
Zinc Acetate	--
Citric Acid	--
Oxalic Acid	--
Arsenic Acid	--
Urotropine	--
Dimethylglioxime	--
"Nitron"	--
Sodium Perborate	--

SUBSTANCE TESTED	COLOR UPON THE FURTHER ADDITION OF PEROXIDE
Silver Nitrate	Immediate purplish to black
Aluminum Sulfate	--
Barium Acetate	--
Barium Chloride	--
Bismuth Sulfate	Faint lemon yellow streaked with blue
Calcium Acetate	--
Ammonium Nitrate	--
Sodium Fluoride	--
Calcium Chloride	--

SUBSTANCE TESTED	COLOR UPON THE FURTHER ADDITION OF PEROXIDE
Cobalt Chloride	Yellow, changing to blue
Copper Acetate	--
Copper Sulfate	Definite yellow turning dark blue
Ferric Chloride	Changes to faint orange color
Ferric Sulfate	--
Ferrous Sulfate	Orange to greenish coloration
Mercurous Chloride	Yellowish color forms
Mercurous Nitrate	Turns brownish
K Ferrocyanide	Blue color produced
K Cyanide	Pale blue, slowly forming
K Bromide	--
K Sulfate	--
K Oxalate	--
Mg Chloride	--
K Arsenate	--
KNO_3	--
K Chloride	--
K Permanganate	No change from blue
K Iodate	--
K Iodide	Blue, violet, and brownish yellow
K Dichromate	No change
Ferrous Ammonium SO_4	Orangish yellow to blue
K Ferricyanide	No change observed
K Persulfate	No change
K Nitrite	No change
K Thiocyanate	Faint blue, deeper blue on standing
Mg Sulfate	--
Mg Acetate	--
Na Chloride	--
Na Nitrate	--
Na Nitrite	Little change--toward yellowish
Na Carbonate	--
Na Sulfate	--
Na H Phosphate	--

SUBSTANCE TESTED	COLOR UPON THE FURTHER ADDITION OF PEROXIDE
Na Acetate	--
Na Silicate	--
K Chlorate	--
K Chromate	No change
Ammonium Chloride	--
Ammonium Carbonate	--
Ammonium Molybdate	Turns orange
Ammonium Oxalate	--
Nickel Nitrate	Turns blue
Lead Acetate	Orange to yellow color produced
Stannous Chloride	--
Thallium Acetate	Turns deep blue to brownish orange
Thallium Nitrate	Turns deep blue to brown
Uranyl Acetate	--
Zinc Chloride	--
Zinc Acetate	--
Citric Acid	--
Oxalic Acid	--
Arsenic Acid	--
Urotropine	--
Dimethylgloxime	--
"Nitron"	Turns yellow
Sodium Perborate	--

Further tests were not run on inorganic compounds. Only two nitrites were available for testing purposes, and a number of nitrates. In no instance was there any similarity between reactions obtained and the nitrite reaction.

In order to test the effect of the presence of other ions on this nitrite test, the following series of tests were run, in the manner indicated on the next page.

A dilute aqueous solution of potassium nitrite was made up. Then into this were placed, in consecutive order, a similar amount (or more) of a number of the above listed chemicals. After each addition of a chemical, the spot test was repeated, and another substance added to the solution containing the potassium nitrite plus added materials. Thus, the more tests which were run, the greater the number of ions present. Naturally the addition of many of the chemicals resulted in the precipitation of insoluble salts, in many cases, no doubt, effectively eliminating the ion added. On the whole, however, probably the effect of each ion, and of numerous combinations, were eventually tested.

The results are presented in tabular form. An asterisk indicates a positive nitrite test. A double asterisk indicates a positive reaction of a more definite nature than that represented by a single asterisk. Presence of other colors obtained was not recorded insofar as they did not mask the nitrite color reaction.

Chemical Added to Nitrite Solution (in the order listed)	Test Results
Silver Nitrate	*
Aluminum Sulfate	*
Barium Acetate	*
Barium Chloride	**
Calcium Acetate	**
Calcium Carbonate	**
Calcium Oxalate	**
Calcium Chloride	**
Ferric Sulfate	**
Mercurous Chloride	**
K Ferrocyanide	**
K Acetate	*
K Bromide	*
K Sulfate	*
K Oxalate	*
Mg Chloride	*

Chemical Added to Nitrite Solution (in the order listed)	Test Results
K Arsenate	*
K Nitrate	*
K Chloride	*
K Iodate	*
K Iodide	*
K Persulfate	*
K Thyocyanate	*
Mg Sulfate	*
Mg Acetate	*
Na Chloride	*
Na Carbonate	*
Na Sulfate	*
Na Bicarbonate	*
Na Sulfite	*
Na H Phosphate	*
Na Acetate	*
Na Silicate	*
Ammonium Chloride	*
Ammonium Carbonate	*
Ammonium Molybdate	*
Ammonium Oxalate	*
Stannous Chloride	*

At this point, hydrogen cyanide was evolved, making further tests on this test material objectionable. Therefore a new nitrite solution was made up and the tests begun again with the remainder of the chemicals in the same manner as the above.

Chemical Added to Nitrite Solution (in the order listed)	Test Results
Thallium Acetate	**
Thallium Nitrate	**
Uranyl Acetate	**

Chemical Added to Nitrite Solution (in the order listed)	Test Results
Zinc Chloride	**
Zn Acetate	**
Citric Acid	**
Oxalic Acid	*
Arsenic Acid	*
Urotropine	*
"Nitron"	*
HCL	Gives a yellow color. Made orange with KOH
KOH	**
Nitric Acid	Transient yellow. Made orange with KOH

Sulfuric Acid

or sulfate ion in the presence of mineral acids greatly inhibits or prevents the reaction entirely. (Due to precipitation of benzidine sulfate probably)

The procedure outlined above for testing interference obviously does not give any reliable indication of the relative degrees of interference of any particular substances on the test, but is significant in indicating the delicacy of the test in presence of other ions and salts.

The following organic materials were tested with the benzidine reagent and all found to give negative results (in no case was any color produced). Addition to the tested spot, of a nitrite solution in every case resulted in a positive nitrite reaction.

(1) Methyl Alcohol
(2) Chloroform
(3) Carbon Tetrachloride
(4) Acetone
(5) Formaldehyde
(6) Amyl Alcohol
(7) Amyl Acetate
(8) Dextrose
(9) Caffeine
(10) Acetanilide
(11) Veratrine
(12) Strychnine Sulfate
(13) Quinidine Sulfate
(14) Sodium Salicylate
(15) Pilocarpine Nitrate
(16) Codeine Phosphate
(17) Cocaine
(18) Veronal
(19) Henbane
(20) Morphine
(21) Urea
(22) Resorcinol
(23) B-Nitroso-A-Naphthol
(24) Sodium Hydrosulfite

Further tests on organics were not run.

SENSITIVITY OF THE TEST

Sensitivity of the reaction was found to vary with the quality of the benzidine, and its acidity. The reagent solution should be about half or more acetic acid. Sensitivity of the concentration of acid in the reagent was not specifically tested.

For tests on the sensitivity of the nitrite test, a saturated solution of benzidine in an approximately 50-50 (by volume) solution of alcohol and acetic acid was used.

Sensitivity was tested by mixing up known concentration of nitrite solutions and placing only one drop of the test solution, and one drop of the reagent solution on the paper. In actual practice, of course, positive reactions could be obtained in dilutions greater than the maximum presented here, by concentrating the test drop.

In a concentration of 1:1000, an immediate reaction was obtained, reaching a maximum within ten or fifteen seconds.

In a concentration of 1:10,000 reaction was quite posi-

tive, developing in about two seconds and reaching a maximum in fifteen or twenty.

In a concentration of 1:100,000 the reaction was very faint, not appearing for about twenty seconds, and reaching a maximum intensity in about a minute. Limit of sensitivity therefore, of a soluble nitrite in pure water should not be taken as over 1:100,000, and probably 1:50,000 should be accepted as the practical limit.

* * *

Although this reaction would appear to serve as an excellent and convenient spot test for nitrites, and quite specific, definite conclusions regarding this could not be drawn from no more data than that presented above.

Other tests have been recorded in which benzidine is used in the testing of nitrites,** but a review of our reference literature failed to reveal any mention of this particular test.***

Possibly the reaction is one familiar to the chemists in the dye industry, inasmuch as many dyes are produced with benzidine; but as stated above, there appears to be no mention, or at least general application of it as a routine nitrite test.

- # -

* Mr. Davis is a graduate of the University of California at Berkeley, where in December of 1941 he received an A.B. degree in "Technical Criminology." He has been employed as a civilian laboratory technician by the Missouri State Highway Patrol since February 9, 1942.

** Feigl -- "Spot Tests", 4939. Pub. by Nordemann Publishing Co. N.Y., page 238.

*** Refer to the explanatory comment at the beginning.

COMMENTS FROM AND TO THE READERS

With the first issue of THE TECHNICIAN, we sent out a short questionnaire, in which, among other things, we asked "What do you think of a society of Police Laboratory Technicians should have as its objectives, and how might they be realized."

The various answers to this question will undoubtedly be of interest to workers in the field; these remarks show a definite interest in the problem, and a certain amount of unity of thought on the matter.

A few of the comments follow:

> "I think your outline of aims (as presented in THE TECHNICIAN) is sufficient and adequate, at least for the duration of the war."
>
> "More complete dissemination of practical applications of laboratory techniques as applied to police work than is now available to American Police Laboratory workers. This can be realized through more frequent publication in American Journals articles dealing with police laboratory methods, and by periodic gatherings where formal lectures and informal discussions and conversations may be held on topics of mutual interest to the members of the society."
>
> "(1) Dissemination (free and complete) of information to other police laboratory men only.
> (2) Certification of legal experts, tending to eliminate the commercial expert."
>
> "Discussion as to the value of old methods, and presentation of new methods in police science through publications and meetings. Stressing the importance and accuracy of scientific methods."

"(1) Restrict membership to active technical workers not to include fingerprint classifiers, etc."

(2) Adopt suitable standards for membership.
(3) Adopt, where possible, standardized procedures.
(4) Annual or semi-annual unknown samples of hair, bullets, etc. for examination by members to determine their proficiency.
(5) Suitable meetings to be held after the war.
(6) Aims to eliminate the ubiquitous hokum in this field, and substitute honest competent examinations without benefit of unrestricted imagination."

"I believe that such a society should accumulate available material pertaining to Police Laboratory work, and circulate such among its members. To formulate and promote established laboratory methods and procedures as it pertains to police laboratories. To evaluate and establish the fundamental requirements for individuals seeking entrance into this field."

"I believe the objectives set forth in the publication to be very appropriate.

"To see that a high standard of excellence is maintained by all members in their work, thus raising the quality of technical evidence to a plane where it belongs. See that only properly qualified men should be admitted to membership. Preach (and practice) the idea that the duty of a police laboratory isto give out only FACTS, and this regardless of the effect on the case at hand."

"I agree with the objectives as outlined in

your first issue of "THE TECHNICIAN."

Other, and more comprehensive, ideas on the subject have been expressed in later correspondence to the Ed-tor. Generally speaking the desire of men interested in the problem is to see a society formed which will

(1) Set definite qualification standards which must be met by individuals entering the field.
(2) Promote interest in organized meetings where formal and informal discussions may be held, and in which various committees could be designated to investigate and report on some of the different problems involved in this work.
(3) Exclude from membership those men who are not properly qualified by reason of training and or experience; who are not truly laboratory technicians; or who are working for private laboratories rather than official police organ-izations.
(4) Standardize on terminology to be used in designating men in this profession, and attempt to bring that name and profession to the atten-tion of the public in such a manner that it may command the respect which it deserves.

These, obviously, are only preliminary and basic aims and desires. Specifically there would be numerous other objectives and details to be considered if a soci-ety should be organized.

- # -

The reaction of our readers to THE TECHNICIAN as a publication has been most favorable.

In actually attempting to evaluate the response to a bulletin of this type, a number of factors must be taken into consideration. Primarily, they are:

(1) The number of subscription fees sent in.
(2) The types of comments made on it.
(3) The caliber of the men expressing interest in it.
(4) The extent to which these men will
    (a) Voluntarily offer constructive criticism and suggestion as to methods of improving the publication, or of carrying out its aims.
    (b) Voluntarily submit material to it for publication.
    (c) Take an active interest in participating the organization of plans initiated by themselves or the bulletin.
    (d) Devote themselves and their time to an actual consideration of the aims and objectives which we should attempt to meet.
    (e) Assume a certain amount of responsibility for the publication, and its successful continuation.

It is difficult to determine just which of these factors is most important, or which should be considered the more significant. All in all, we feel that our efforts have not been in vain, and wish to express appreciation to all individuals and departments who have shown an interest in THE TECHNICIAN.

Remarks such as:

"Your idea to publish an organ for police laboratory technicians is indeed noteworthy. The idea of an organization of laboratory technicians is one that we have been interested in for a long time. I believe that it is time to organize and institute a code of ethics as well as to facilitate the dissemination of information."

"A cursory glance through the sample copy, Volume 1, No.1, reveals that the publication is one of great

merit."

"We have read the initial copy of THE TECHNICIAN and have found it to be both informative and interesting. What your organization is trying to do for the police laboratory is commendable, and the magazine should do much towards bringing to a realization, its aim and purpose."

"Your publication has exceeded my greatest hope and expectation."

"We wish to acknowledge receipt of the first issue of THE TECHNICIAN and wish to express our congratulations to you on your efforts, and our best wishes for a successful future."

"I am in receipt of your May and June issues of THE TECHNICIAN. I find the articles therein most interesting and instructive. It is my hope that this publication will inevitably become the bible of our profession. Best wishes for continued success."

Etc. Etc. --

These are representative of the favorable comments made as to the publication itself.

Yet at the same time there is a noticeable failure on the part of our readers to actively offer support of the bulletin in the way of literary contributions. It will have been noted that much of the material presented therein has issued from the Missouri State Highway Patrol Laboratory. This was necessary and pardonable in the first few issues. If, however, the publication is to be representative of the entire field, and is to mirror the views of the profession as a whole, then such a procedure cannot long be justified.

With this issue we have made public our plans to

distribute the bulletin free of charge to all interested persons and departments so long as it is properly supported otherwise, and until or unless other arrangements for distribution are necessitated.

Our present mailing list numbers just less than two hundred copies per month, and includes addresses in Canada as well as the United States. If only 5 persons out of that two hundred would make a literary contribution to the publication each month, its success would be assured.

THE EDITOR

* *
*
* We wish to acknowledge the announcement of *
* THE TECHNICIAN which was carried on the *
* last page of FINGERPRINT AND IDENTIFICA- *
* TION for August. We have received numerous *
* requests for our publication as a result *
* of that announcement. *
*
* *